

Parkes Network Station Report 2015–2016

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Abstract This report discusses observing done by the Parkes 64-m telescope during 2015 and 2016 and the future outlook for the telescope.

1 Observing in 2015 and 2016

The Parkes 64-m telescope participated in 11 24-hour IVS sessions over the 2015–2016 period, after a hiatus in 2014.

Nine of these sessions were made as part of the AUSTRAL VLBI observing program, linking the Australian AuScope VLBI antennas at Hobart, Katherine, and Yarragadee, as well as the antennas at Warkworth (New Zealand) and Hartebeesthoek (South Africa). The other two sessions were conducted as part of an observing program established by the Asia-Oceania VLBI Group for Geodesy and Astrometry (AOV), targeting a number of new candidate astrometric sources including several radio stars and adjacent phase-reference sources.

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Parkes also participated in two 24-hour sessions as part of a program led by Leonid Petrov (ADNET systems/GSFC) of hybrid astronomy/geodesy observations, refining the locations of several southern hemisphere radio stations that are equipped with neither dual S/X receiving systems nor IVS-compatible recording systems. This program also aims to identify additional calibrator sources in the Southern Hemisphere for “densification” of the ICRF in the South.

2 Outlook

While the operational funding outlook for a continuing role in astrometric and geodetic VLBI programs remains uncertain, all avenues to sustain the current levels of participation of Parkes are being actively pursued.